

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

The Examiner is thanked for conducting a telephone interview on October 16, 2009. Independent claim 9 has been amended along the lines discussed with the Examiner to overcome the rejection in view of US 2003/0004506 ("Messing").

Specifically, independent claim 9 has been amended to clarify that the at least three connected spherical or approximately spherical surfaces of the tip electrode are unbroken without any gaps or apertures formed anywhere on the surface of the tip electrode.

No new matter has been added, and it is respectfully requested that the amendment to claim 9 be approved and entered. And it is respectfully submitted that amended independent claim 9 clearly patentably distinguishes over Messing.

Significantly, according to the present invention as recited in clarified amended independent claim 9, the at least three connected spherical or approximately spherical surfaces of the tip electrode are unbroken without any gaps or apertures formed anywhere on the surface of the tip electrode.

As explained in the Amendment filed May 27, 2009, with this structure, the strongest line of electric force is emitted from the outermost circumferential portion of each approximately

spherical surface. In other words, virtually three lines of electric force are emitted from a tip electrode comprising at least three unbroken spherical or approximately spherical surfaces which have centers on a same straight line and which are connected by a curved surface. Since the lines of electric force repel each other due to the exclusion effect of lines of electric force, an advantageous effect is produced whereby the output power at the center is enhanced. As a result, the line of electric force at the center can penetrate a tissue of an organism directly into deep regions, and cauterization is achieved effectively. See the disclosure in the specification at page 12, line 22 to page 13, line 7. In addition, since the tip electrode has a smooth shape formed by connecting three or more unbroken approximately spherical surfaces to each other with a curved surface, the tip electrode is cooled by the circulating blood stream and coagulation of blood causing thrombosis can be suppressed. See the disclosure in the specification at page 12, lines 14-18.

As recognized by the Examiner on page 4 of the Office Action dated September 15, 2009, Messing discloses a catheter structure which includes exit ports 520 (i.e., gaps/apertures) between adjacent electrode portions. See Fig. 5 of Messing.

Accordingly, it is respectfully submitted that Messing clearly fails to disclose or suggest the feature of the present

invention as recited in amended independent claim 9 whereby the at least three connected spherical or approximately spherical surfaces of the tip electrode are unbroken without any gaps or apertures formed anywhere on the surface of the tip electrode, and it is respectfully submitted that the structure disclosed in Messing does not achieve the above described advantageous effects of the claimed present invention.

In view of the foregoing, it is respectfully submitted that amended independent claim 9 and claims 10-24 depending therefrom clearly patentably distinguish over Messing under 35 USC 102 as well as under 35 USC 103.

Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

/Douglas Holtz/

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